

# MAINE PUBLIC HEALTH ALERT NETWORK SYSTEM

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***\*\*ALERT – Important Information\*\****

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2007PHALT002

**TO:** All

**FROM:** Dora Anne Mills, M.D., M.P.H., Public Health Director

**SUBJECT:** Pertussis Cluster in Portland area

**DATE:** September 7, 2007

**TIME:** 8:00 AM

**PAGES:** 3

**PRIORITY:** High

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Maine Center for Disease Control and Prevention (Maine CDC)  
(Formerly Bureau of Health)

## **Pertussis Exposures in the Portland Area**

### **Background:**

Maine CDC is investigating a household cluster of pertussis cases in the Portland area, following the diagnosis of pertussis in an infant who was admitted to a hospital critical care unit over the weekend. Although there are no other persons currently hospitalized or seriously ill, this health advisory is being distributed because of the large number of children who were likely to have been exposed to pertussis during the past several weeks and for whom antibiotic prophylaxis and evaluation of respiratory illnesses is being recommended. Exposures occurred over the past 2-3 weeks in several settings including a childcare center and two children's sports teams. Parents of children who have been identified as case contacts are being notified and will be likely to be calling their medical provider offices over the next few days. It should be noted that there is no evidence of a wider community outbreak of pertussis in southern Maine at this time.

Pertussis is a highly communicable, vaccine-preventable bacterial disease that lasts for several weeks or more. It is transmitted through direct contact with discharges from respiratory mucous membranes of infected persons. It is not airborne. Symptoms include prolonged cough illness that may be accompanied by paroxysmal spasms of severe coughing, involuntary "whooping" after prolonged coughing spells, and post-tussive vomiting. Infants, who are the most vulnerable to severe disease may have periods of apnea. Complications are uncommon beyond infancy, but may include pneumonia, seizures and encephalopathy.

### **Recommendations for persons who have been identified as close contacts:**

Persons who have been identified as close contacts of infectious pertussis cases in the epidemiologic investigation are receiving notification to contact their health care providers. For these individuals, Maine CDC is making the following recommendations:

1. Asymptomatic children identified as close contacts (i.e., the children whose parents receive these letters) should be prescribed a 5-day prophylactic course of azithromycin or of one of the other approved antibiotics listed in the CDC table that is reproduced below.
2. Children who are symptomatic with cough or coryza should be treated presumptively with an appropriate antibiotic (same drugs, dosages, and duration as for prophylaxis), must be excluded from school, childcare, and other group activities until they have completed 5 days of antibiotic treatment, and should be tested for pertussis using a nasopharyngeal swab sent to the Maine Health and Environmental Testing Laboratory.
3. Children who are now asymptomatic but who develop respiratory illness (cough or coryza) must be excluded from school until they have completed 5 days of appropriate antibiotic therapy if they have not already done so.
4. Individuals with suspected Pertussis should be treated after a nasopharyngeal specimen is collected for testing. The federal CDC has recently updated guidelines for antibiotic treatment for Pertussis cases and contacts (MMWR; December 9, 2005. RR-14). The guidelines are available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5414a1.htm> .

5. Individuals with symptoms of Pertussis should be considered to be infectious and should not attend school, work, or daycare until they have completed 5 days of an appropriate antibiotic treatment. This is especially important for persons working in medical settings or with infants and young children.

6. Children under age 7 should be up-to-date for Pertussis immunization. Also, consider vaccinating patients 11-18 years of age with the Tdap vaccine if they have had their latest Td booster more than 5 years ago. In an outbreak setting, Tdap may be given 2 years after the last Td booster.

7. A summary table listing recommended antibiotics with dosages and durations has been included below. Again, please note that dosages and durations of treatment are the same for treatment and prophylaxis.

**TABLE 4. Recommended antimicrobial treatment and postexposure prophylaxis for pertussis, by age group**

Age group	Primary agents			Alternate agent*
	Azithromycin	Erythromycin	Clarithromycin	TMP-SMZ
<1 month	Recommended agent. 10 mg/kg per day in a single dose for 5 days (only limited safety data available.)	Not preferred. Erythromycin is associated with infantile hypertrophic pyloric stenosis. Use if azithromycin is unavailable; 40–50 mg/kg per day in 4 divided doses for 14 days	Not recommended (safety data unavailable)	Contraindicated for infants aged <2 months (risk for kernicterus)
1–5 months	10 mg/kg per day in a single dose for 5 days	40–50 mg/kg per day in 4 divided doses for 14 days	15 mg/kg per day in 2 divided doses for 7 days	Contraindicated at age <2 months. For infants aged ≥2 months, TMP 8 mg/kg per day, SMZ 40 mg/kg per day in 2 divided doses for 14 days
Infants (aged ≥6 months) and children	10 mg/kg in a single dose on day 1 then 5 mg/kg per day (maximum: 500 mg) on days 2–5	40–50 mg/kg per day (maximum: 2 g per day) in 4 divided doses for 14 days	15 mg/kg per day in 2 divided doses (maximum: 1 g per day) for 7 days	TMP 8 mg/kg per day, SMZ 40 mg/kg per day in 2 divided doses for 14 days
Adults	500 mg in a single dose on day 1 then 250 mg per day on days 2–5	2 g per day in 4 divided doses for 14 days	1 g per day in 2 divided doses for 7 days	TMP 320 mg per day, SMZ 1,600 mg per day in 2 divided doses for 14 days

\* Trimethoprim sulfamethoxazole (TMP–SMZ) can be used as an alternative agent to macrolides in patients aged ≥2 months who are allergic to macrolides, who cannot tolerate macrolides, or who are infected with a rare macrolide-resistant strain of *Bordetella pertussis*.

Source: Recommended Antimicrobial Agents for the Treatment and Postexposure Prophylaxis of Pertussis, CDC, 2005.

8. For more information on pertussis control measures, please go to <http://www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm>.

**Providers are asked to report suspect cases (exposed children with respiratory illness) to Maine CDC at 1-800-821-5821**